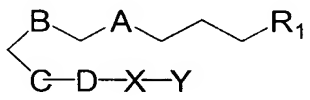
WHAT IS CLAIMED IS:

1. A composition for the treatment of dry eye and other disorders requiring the wetting of the eye comprising a pharmaceutically acceptable carrier and a pharmaceutically effective amount of one or more compounds of the following formula I:



I

wherein:

R^1 is CO_2R, $CONR^2R^3$, CH_2OR^4, $CH_2NR^5R^6$, CH_2N_3, CH_2Hal, CH_2NO_2, CH_2SR^{20}, $COSR^{21}$, or 2,3,4,5-tetrazol-1-yl, wherein:

R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

NR^2R^3 and NR^5R^6 are the same or different and comprise a free or functionally modified amino group, e.g., R^2, R^3, R^5 and R^6 are the same or different and are H, alkyl, cycloalkyl, aralkyl, aryl, OH, or alkoxy, with the proviso that at most only one of $R^2$and R^3 are OH or alkoxy and at most only one of R^5 and R^6 are OH or alkoxy;

OR^4 comprises a free or functionally modified hydroxy group, e.g., R^4 is H, acyl; alkyl, cycloalkyl, aralkyl, or aryl;

Hal is F, Cl, Br, or I;

SR^{20} comprises a free or functionally modified thiol group; and

R^{21} is H or $COSR^{21}$ forms a pharmaceutically acceptable salt or a pharmaceutically acceptable thioester;

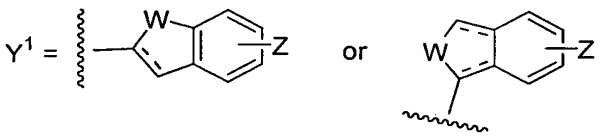
A, B and D are the same or different and are C_1-C_5 alkyl, C_2-C_5 alkenyl, C_2-C_5 alkynyl, or a C_3-C_5 allenyl group;

C is an oxirane or cyclopropane;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1-6; and

Y is a phenyl ring optionally substituted with alkyl, halo, trihalomethyl, acyl, or a free or functionally modified hydroxy, amino, or thiol group; or

X-Y is $(CH_2)_pY^1$; wherein p is 0-6; and



wherein:

W is CH_2, O, $S(O)_q$, NR^8, CH_2CH_2, CH=CH, CH_2O, $CH_2S(O)_q$, CH=N, or CH_2NR^8; wherein q is 0-2, and R^8 is H, alkyl, or acyl;

Z is H, alkyl, acyl, halo, trihalomethyl, or a free or functionally modified amino, thiol, or hydroxy group; and

---- is a single or double bond;

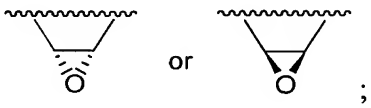
or X-Y is cyclohexyl or *n*-C_5H_{11}.

2. The composition of Claim 1, wherein for the compound of formula I:

R^1 is CO_2R, wherein R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

A and B are C_{1-5} alkyl, alkenyl, or alkynyl or C_{3-5} allenyl group;

C is



;

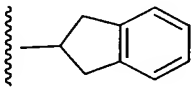
D is a C_3 alkyl, alkenyl, or alkynyl group;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1 or 2; and

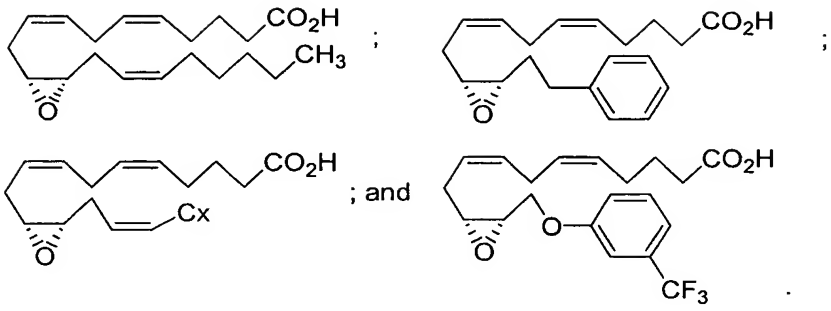
Y is a phenyl ring optionally substituted with halo, trihalomethyl, or a free or functionally modified hydroxy group; or

X-Y is *n*-C_5H_{11} or cyclohexyl; or

X-Y is Y^1; wherein

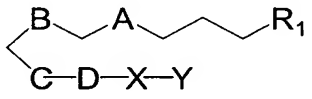
Y^1 = 

3. The composition of Claim 2, wherein the compound of formula **I** is selected from the group consisting of:



4. The composition of Claim 1, wherein the composition is a topical ophthalmic formulation.

5. A method for the treatment of dry eye and other disorders requiring the wetting of the eye which comprises administering to a mammal a composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective amount of one or more compounds of the following formula I:



I

wherein:

R^1 is CO_2R, $CONR^2R^3$, CH_2OR^4, $CH_2NR^5R^6$, CH_2N_3, CH_2Hal, CH_2NO_2, CH_2SR^{20}, $COSR^{21}$, or 2,3,4,5-tetrazol-1-yl, wherein:

R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

NR^2R^3 and NR^5R^6 are the same or different and comprise a free or functionally modified amino group, e.g., R^2, R^3, R^5 and R^6 are the same

or different and are H, alkyl, cycloalkyl, aralkyl, aryl, OH, or alkoxy, with the proviso that at most only one of $R^2$and R^3 are OH or alkoxy and at most only one of R^5 and R^6 are OH or alkoxy;

OR^4 comprises a free or functionally modified hydroxy group, e.g., R^4 is H, acyl; alkyl, cycloalkyl, aralkyl, or aryl;

Hal is F, Cl, Br, or I;

SR^{20} comprises a free or functionally modified thiol group; and

R^{21} is H or $COSR^{21}$ forms a pharmaceutically acceptable salt or a pharmaceutically acceptable thioester;

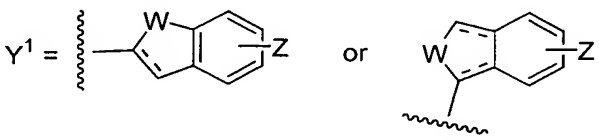
A, B and D are the same or different and are C_1-C_5 alkyl, C_2-C_5 alkenyl, C_2-C_5 alkynyl, or a C_3-C_5 allenyl group;

C an oxirane or cyclopropane;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1-6; and

Y is a phenyl ring optionally substituted with alkyl, halo, trihalomethyl, acyl, or a free or functionally modified hydroxy, amino, or thiol group; or

X-Y is $(CH_2)_pY^1$; wherein p is 0-6; and



wherein:

W is CH_2, O, $S(O)_q$, NR^8, CH_2CH_2, CH=CH, CH_2O, $CH_2S(O)_q$, CH=N, or CH_2NR^8; wherein q is 0-2, and R^8 is H, alkyl, or acyl;

Z is H, alkyl, acyl, halo, trihalomethyl, or a free or functionally modified amino, thiol, or hydroxy group; and

---- is a single or double bond;

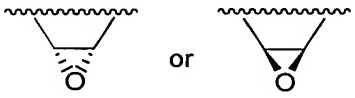
or X-Y is cyclohexyl or *n*-C_5H_{11}.

6. The method of Claim 5, wherein for the compound of formula I:

R^1 is CO_2R, wherein R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

A and B are C_{1-5} alkyl, alkenyl, or alkynyl or C_{3-5} allenyl group;

C is



;

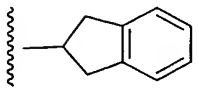
D is a C_3 alkyl, alkenyl, or alkynyl group;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1 or 2; and

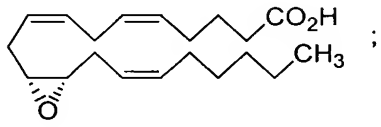
Y is a phenyl ring optionally substituted with halo, trihalomethyl, or a free or functionally modified hydroxy group; or

X-Y is *n*-C_5H_{11} or cyclohexyl; or

X-Y is Y^1; wherein

Y^1 = 

7. The method of Claim 6, wherein the compound of formula I is selected from the group consisting of:



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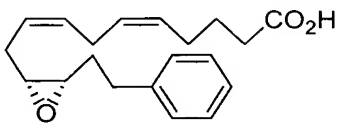

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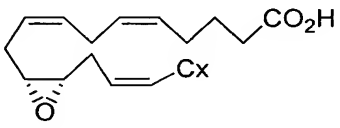
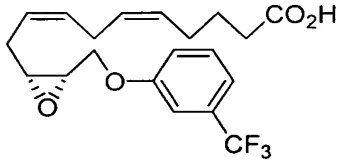
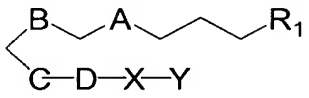


; and


8. The method of Claim 5, wherein the composition is a topical ophthalmic formulation.

9. The method of Claim 5 wherein the dry eye and other disorders requiring the wetting of the eye is symptoms of dry eye associated with refractive surgery.

10. A compound of the following formula I:



I

wherein:

R^1 is CO_2R, $CONR^2R^3$, CH_2OR^4, $CH_2NR^5R^6$, CH_2N_3, CH_2Hal, CH_2NO_2, CH_2SR^{20}, $COSR^{21}$, or 2,3,4,5-tetrazol-1-yl, wherein:

R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

NR^2R^3 and NR^5R^6 are the same or different and comprise a free or functionally modified amino group, e.g., R^2, R^3, R^5 and R^6 are the same or different and are H, alkyl, cycloalkyl, aralkyl, aryl, OH, or alkoxy, with the proviso that at most only one of $R^2$and R^3 are OH or alkoxy and at most only one of R^5 and R^6 are OH or alkoxy;

OR^4 comprises a free or functionally modified hydroxy group, e.g., R^4 is H, acyl; alkyl, cycloalkyl, aralkyl, or aryl;

Hal is F, Cl, Br, or I;

SR^{20} comprises a free or functionally modified thiol group; and

R^{21} is H or $COSR^{21}$ forms a pharmaceutically acceptable salt or a pharmaceutically acceptable thioester;

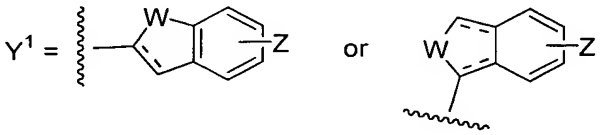
A, B and D are the same or different and are C_1-C_5 alkyl, C_2-C_5 alkenyl, C_2-C_5 alkynyl, or a C_3-C_5 allenyl group;

C is an oxirane or cyclopropane;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1-6; and

Y is a phenyl ring optionally substituted with alkyl, halo, trihalomethyl, acyl, or a free or functionally modified hydroxy, amino, or thiol group; or

X-Y is $(CH_2)_pY^1$; wherein p is 0-6; and



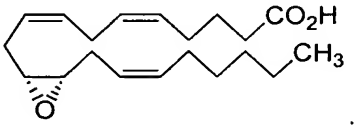
wherein:

W is CH_2, O, $S(O)_q$, NR^8, CH_2CH_2, CH=CH, CH_2O, $CH_2S(O)_q$, CH=N, or CH_2NR^8; wherein q is 0-2, and R^8 is H, alkyl, or acyl;

Z is H, alkyl, acyl, halo, trihalomethyl, or a free or functionally modified amino, thiol, or hydroxy group; and

---- is a single or double bond;

or X-Y is cyclohexyl or *n*-C_5H_{11}, provided that the following compound is excluded:

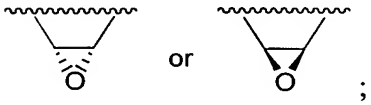


11. The compound of Claim 10, wherein for the compound of formula I:

R^1 is CO_2R, wherein R is H or CO_2R forms a pharmaceutically acceptable salt or a pharmaceutically acceptable ester;

A and B are C_{1-5} alkyl, alkenyl, or alkynyl or C_{3-5} allenyl group;

C is



;

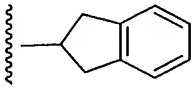
D is a C_3 alkyl, alkenyl, or alkynyl group;

X is $(CH_2)_m$ or $(CH_2)_mO$, wherein m is 1 or 2; and

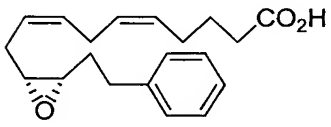
Y is a phenyl ring optionally substituted with halo, trihalomethyl, or a free or functionally modified hydroxy group; or

X-Y is *n*-C_5H_{11} or cyclohexyl; or

X-Y is Y^1; wherein

Y^1 = 

12. The compound of Claim 11, wherein the compound of formula I is selected group consisting of:



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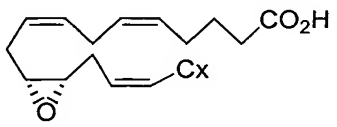

; and